



## **Environmental Epidemiology and Toxicology – State Funded Fact Sheet**

Environmental Epidemiology and Toxicology focuses on people and their environment, promotes human health and well-being, and fosters a safe and healthful environment. Environmental Epidemiology and Toxicology is Louisiana's state-wide public health program for hazardous chemicals and includes the following subprograms: Indoor Air Quality Education, Environmental Health Advisories, Pesticide Surveillance, Disease Cluster Investigations, Chemical Events Exposure Assessment, and Health Education/Community Outreach, with the support of Geographical Information System (GIS) technology. Health investigators take responsive action based on the best science and information to prevent and mitigate harmful exposures to chemicals and other related diseases. Staff study, identify and quantify exposures to environmental contaminants, conduct health risk assessments and issue risk communications; provide medical evaluation and surveillance for adverse health effects and provide health guidance on levels of exposure to contaminants.

A reduction in funding for this activity would reduce the number of experienced and qualified staff which would result in a decrease in the:

- number of toxic chemical exposure investigations and environmental and occupational health surveillance activities within Louisiana
- response time to address residential environmental health concerns and emergency events
- capacity to conduct comprehensive assessments in a timely manner
- detection of emerging environmental health diseases

And an increase in the:

- risk of environmental exposures in the general population, and especially for sensitive populations (e.g. young children, pregnant women), related to contamination in soil, outdoor/indoor air, surface water/private water wells, sediment and food
- number of illnesses related to exposure to hazardous chemicals
- public concern/outrage and media attention
- efforts and resources required to address heightened community concerns

If funding were increased, the program could be expanded to include a mercury fish advisory program (DEQ program) and an indoor air quality assessment program (unfunded mandate). Please refer to expanded APRs for mercury fish advisories and indoor air quality.

## Objective

Identify toxic chemicals in the environment; evaluate the extent of human exposure and the adverse health effects caused by them; make recommendations to prevent and reduce exposure to hazardous chemicals; promote a better public understanding of the health effects of chemicals in the environment.

## Performance Indicators

- Number of indoor air quality phone consultations provided annually
- Number of waterbodies assessed annually
- Number of LA State Police and National Response Center emergency incident reports screened for public health action annually

## Narrative

[www.seet.dhh.la.gov](http://www.seet.dhh.la.gov)

There is considerable concern about the contribution of environmental hazards to the development of disease in Louisiana and consequent demand for accurate, accessible environmental health information. Environmental Epidemiology and Toxicology responds to those concerns by:

- Providing information on indoor air quality contaminants (e.g. mold, formaldehyde, foreign drywall) through telephone consultations, environmental educational material development, and targeted outreach (e.g. air quality in schools)
- Addressing requests from the public, government agencies, and the state legislature (e.g. SCR 92-Livonia, HCR 188-Lafarge/Gert Town, HCR 185-foreign drywall) to investigate individual case reports of toxic exposures and conduct disease cluster investigations (e.g. cancer, respiratory, neurological, and reproductive diseases) and/or health studies (e.g. Mississippi Roach Killer, Mossville, Grand Bois).
- Coordinating with federal and state counterparts to estimate risk of exposure to chemicals with health-based national standards and those without established national standards.
- Evaluating contaminants in locally-caught seafood and, when warranted, issuing health advisories to warn the public and/or making recommendations to reduce exposures to contaminated seafood.
- Evaluating the public health threat of emergency events involving hazardous chemicals and notifying regional staff, affected communities, hospitals, and physicians about the event and the chemicals involved.
- Tracking environmentally-related reportable diseases- exposure to pesticides, mercury, lead, arsenic, cadmium, and carbon monoxide.
- Developing and distributing evidence-based prevention messages for dissemination to at-risk populations, schools, healthcare providers, and communities.
- Partnering with local, state and federal governments, non-profit and faith-based

organizations to ensure that the public is informed about environmental health risks. A comprehensive list of Environmental Epidemiology and Toxicology Partners is attached.

- Administering and managing activities, personnel, and budgets.

## **Better Health**

Environmental Epidemiology and Toxicology advances the outcome goal of Better Health by mitigating environmental risks which is important to the long term health and well-being of Louisiana's citizens. Its activities advance the goal by providing public health assessments and other services that aid the public and officials in making appropriate public health decisions. Environmental Epidemiology and Toxicology is made up of 11 environmental health professional staff who have earned at least a Masters degree in their field. Their experience and education, combined with selected consultation with state agencies and nationally recognized medical and scientific experts, contribute to the overall efficient and effective functioning of the program. This activity also receives the support of technology experts (GIS and IT). This activity is state-funded.

Future Funding:

- A partnership with the LA Dept. of Wildlife and Fisheries is proposed to continue the Mercury Fish Tissue Assessment Program which LA Dept. of Environmental Quality will discontinue at the end of FY10. See APR entitled Evaluation of Mercury in Fish.
- An expanded IAQ program is proposed because of high demand for this service by LA citizens. See APR entitled Indoor Air Quality.

Environmental Epidemiology and Toxicology advances other State Outcome Goals:

1. Diversified Economic Development: A healthy and safe environment free of toxic chemicals contributes to a high quality of life which will attract businesses to our State.
2. Youth Education: Well-maintained school facilities free of environmental hazards are more conducive to learning.
3. Hurricane Protection and Emergency Preparedness: Providing critical information to the public, government officials, and others during emergency events (e.g. chemical releases, hurricanes) is a key component of an effective and efficient response.

Evidence

Mandates:

1. LA Revised Statutes (RS) 36:258
2. RS 40:5

Funding Sources:

State:

Health-related Pesticide Incident Reports (LDAF contract)  
General Fund

Routine activities- annual average number of:

- Fish advisories=58 (to date)
- LA State Police and National Response Center hazardous incident reports screened=10,720
- Indoor air calls (not including foreign drywall)=734
- Disease cluster investigations=9
- Pesticide exposure investigated = 316
- Heavy metals (lead, mercury, arsenic, cadmium)exposure reports received= 10,745
- Heavy metals exposure cases investigated = 879
- Carbon monoxide hospitalizations/deaths= 65
- Health education and outreach events = 21 (reaching an audience of 25,861 people)

Special activities in FY09:

- At the request of the Governor, Louisiana is working with federal agencies to establish a protocol to assess public health risk and exposure to foreign drywall. (910 foreign drywall calls received to date)
- Supported OPH Regional technology growth by providing video-conferencing equipment, GIS software and training to local staff to enhance capacity for early detection of environmental public health threats.

Environmental Epidemiology and Toxicology (EET) Partners

*1. Federal Partners:*

- a. U. S. Environmental Protection Agency
- b. Centers for Disease Control and Prevention
- c. Consumer Product Safety Commission
- d. Department of Homeland Security, Federal Emergency Management Agency (Hurricane outreach)
- e. Department of Housing and Urban Development (free IAQ training, and post-Hurricane Environmental Training (Rebuild Healthy Homes))
- f. U.S. Department of Labor, Occupational Safety and Health Administration

*2. State Partners:*

- a. Louisiana Department of Environmental Quality
- b. Louisiana Department of Wildlife and Fisheries
- c. Louisiana State University Agriculture Center, Healthy Homes Program and Family Services Program
- d. Louisiana Department of Agriculture and Forestry
- e. Louisiana Poison Control Center

- f. Louisiana State University, School of Dentistry
- g. Governor's Office of Elderly Affairs
- h. Louisiana Department of Education
- i. Louisiana Department of Social Services
- j. Louisiana Department of Labor
- k. Louisiana State Library
- l. Louisiana Attorney General
- m. Louisiana Department of Insurance
- n. Louisiana State Licensing Board for Contractors
- o. Governor's Office of Environmental Education
- p. Louisiana Legislature
- q. Louisiana Department of Culture, Recreation and Tourism, Division of Historic Preservation (info. for lead presentation and report)
- r. Louisiana Department of Transportation and Development
- s. Louisiana Department of Public Safety and Corrections
- t. LDHH, Earl K. Long Hospital

3. *Municipal Partners:*

- a. City of New Orleans (Recreational Dept., Office of Environmental Affairs, Public Advocacy, Health Dept.), New Orleans Public Library, Parkway Partners
- b. Jefferson Parish Office of Environmental Affairs, Jefferson Public Library
- c. St. Bernard Parish Government
- d. City of Baton Rouge
- e. City of Livonia

4. *Other Municipal, State Environmental and Health Departments:*

- a. Florida Health
- b. Virginia Health
- c. Texas Health
- d. Mississippi Attorney General's Office, and the Mississippi Environmental Department
- e. California Health
- f. Washington Health
- g. Alabama Health
- h. North Carolina Health
- i. Missouri Department of Health & Senior Services, Division of Community & Public Health, Bureau of Environmental Epidemiology

- j. Arizona Department of Health
- k. Pennsylvania Department of Health
- l. New Mexico Department of Health
- m. City of Houston, Bureau of Children's Health

5. *Universities:*

- a. Tulane University ( School of Public Health, School of Medicine, Community Affairs and Health Policy, Center for Bioenvironmental Research at Tulane and Xavier Universities)
- b. Louisiana State University Health Sciences Center, School of Public Health
- c. Deep South Center for Environmental Justice at Dillard University
- d. Southern University (Baton Rouge)

6. *Non-profit Organizations and other stakeholders:*

- a. National Center for Healthy Housing
- b. National Environmental Health Association (NEHA, provided free environmental health training)
- c. Southwest Pediatric Health Unit
- d. Council of State and Territorial Epidemiologist (CSTE)
- e. Society for Public Health Education (SOPHE) (free training)
- f. Central City Renaissance Alliance
- g. Louisiana Medical Society
- h. Louisiana Public Health Institute
- i. Louisiana Parent Teacher Association
- j. Louisiana Environmental Education Association
- k. Louisiana School Nurses Association
- l. Louisiana School Board Association
- m. Louisiana Public Health Association
- n. Louisiana Library Association
- o. Louisiana Optometry Association
- p. Louisiana Dental Association
- q. Louisiana Environmental Education Commission
- r. Barataria-Terrebonne National Estuary Program
- s. Audubon Nature Institute
- t. Total Community Action
- u. Agenda for Children
- v. Chata Tribe
- w. Oakville Community

- x. Alsen Community
- y. Resident Air Neutralization
- z. Louisiana Environmental Justice Community Organization Coalition (LJEOC)
- aa. Louisiana Bucket Brigade
- bb. Preservation Resource Center of New Orleans
- cc. Lake Pontchartrain Basin Foundation
- dd. Mary Bird Perkins Hospital
- ee. American Lung Association (LA Chapter, MS chapter provided free IAQ training)
- ff. Louisiana Environmental Action Network
- gg. Louisiana Children's Museum
- hh. Tobacco Free Living
- ii. American Cancer Society (LA Chapter)
- jj. No Broken Windows (Community group in Orleans Parish)
- kk. New Orleans Food and Farm Network
- ll. Families Helping Families
- mm. Latino Farmers Coalition
- nn. St Bernard Community Recovery
- oo. Greater New Orleans American Federation of Labor Congress of Industrial Organizations (formerly PACE)
- pp. St. Bernard Project
- qq. Crescent City WIC Services, Inc.
- rr. The Phoenix of New Orleans
- ss. Our Lady of the Lake Hospital
- tt. New Orleans Community Data Center
- uu. Louisiana Occupational Health Nurses Association
- vv. Boat People S.O.S.
- ww. Southern Pressure Treaters Association
- xx. Southern Forestry Products Association
- yy. Safety Council

7. *Faith Based Organizations:*

- a. Bayou Interfaith Shared Community Organizing (BISCO)
- b. Catholic Charities (New Orleans (Operation Helping Hands and Baton Rouge)
- c. Mary Queen of Vietnam
- d. Operation Nehemiah
- e. Bayou Sorrel Baptist Church
- f. New Orleans Baptist Theological Seminary